



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

*BS*

*TS*

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/307,023	05/07/99	SALCUDEAN	S IMM1P066.RE

PAUL L HICKMAN  
HICKMAN STEPHENS & COLEMAN  
PO BOX 52037  
PALO ALTO CA 94303-0746

LM01/0815

EXAMINER

CHANG, K

ART UNIT

PAPER NUMBER

2778

DATE MAILED:

08/15/00

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.  
**09/307,023**

Applicant(s)

**Salcudean et al.**

Examiner

**KENT CHANG**

Group Art Unit

**2778**



☒ Responsive to communication(s) filed on May 7, 1999

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire three month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

## Disposition of Claim

☒ Claim(s) 1-108 is/are pending in the application

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

☐ Claim(s) \_\_\_\_\_ is/are allowed.

☒ Claim(s) 1-108 is/are rejected.

☐ Claim(s) \_\_\_\_\_ is/are objected to.

☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

## Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some\* ☒ None of the CERTIFIED copies of the priority documents have been  
☐ received.

☐ received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4 & 5

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Art Unit: 2778

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The references listed in the Information Disclosure Statement submitted 4/21/00 and 4/24/00 have been considered by the examiner (see attached PTO-1449).

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 1 recites the limitation "said platform" in line 12. There is insufficient antecedent basis for this limitation in the claim.
4. Claim 27 recites the limitation "said memory" in line 1. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

Art Unit: 2778

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, are rejected under 35 U.S.C. 102(b) as being anticipated by Affinito et al (U.S. Patent No. 4,868,549).

Affinito discloses a force feedback mouse comprising a base (grid 16), a handle (14), a support (surface of the grid 16), a first and second magnet means mounted on the base (ferro magnetic planar surface of the grid), and first and second magnetic force generating means (the magnetic in the X and Y direction).

7. Claims 1-3, 5, 7-12, 94-96, 98-100, 105, and 107 are rejected under 35 U.S.C. 102(e) as being anticipated by Hollis, Jr. et al (U.S. Patent No.5,146,566).

Hollis, Jr. discloses a computer user input/output device comprising a base (410, 502), a handle (420, 512), a permanent magnet means (140), a support providing the handle with a range of movement in a plane (XY plane) in each of the two directions, wherein the position and orientation of the handle is sensed by sensors (160) and the data is input to the computer for generating force feedback (column 5 line 52 to column 6 line 15). The device of Hollis, Jr. also includes a local analog processor (610), a local digital signal processor (DSP 620) for controlling the operation of the I/O device.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2778

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4, 6, 13-93, 97, 101-104, 106, and 108 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hollis, Jr. et al (U.S. Patent No.5,146,566).

Hollis, Jr. discloses a computer user input/output device in the form of a joystick or mouse comprising a base (410, 502), a handle (420, 512), a permanent magnet means (140), a support providing the handle with a range of movement in a plane (XY plane) in each of the two directions, wherein the position and orientation of the handle is sensed by sensors (160) and the data is input to the computer for generating force feedback (column 5 line 52 to column 6 line 15). The device of Hollis, Jr. also includes a local analog processor (610), a local digital signal processor (DSP 620) for controlling the operation of the I/O device. Although Hollis, Jr. does not explicitly mention to calculate the force with the local processor, however, it would have been obvious to use the local processor for calculate the force in the device of Hollis, Jr. so as to reduce the task of the main processor and free up the data transmission line by eliminate the need of transmitting force feedback data.

Consider claims 4, 22, 23, 24. The device of Hollis, Jr. comprises a light source and a sensor for sensing the position of the handle. It would have been obvious to use a transparent grid with in the handle so that light from the light source can be detected by the sensor for detecting the position of the handle.

Art Unit: 2778

Consider claims 25 and 26. Hollis, Jr. teaches to include switches or other active devices.

Consider claims 31-36. It would have been obvious that the generated forces in the device of Hollis, Jr. could have been any type of forces since it merely depends on the type of application running.

### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Saitoh (U.S. Patent No. 5,237,327) discloses a computer input/output device having a power on/off switch.

Armstrong (U.S. Patent No. 5,589,828) discloses a computer input/output device for outputting tactile feedback to the user.

Liou (U.S. Patent No. 5,086,197) discloses an input/output device having a grid, a light source, and a sensor (Fig.8).

Hall (U.S. Patent No. 5,125,077) teaches to use a local processor in an input device for processing data.

Art Unit: 2778

***Contact Information***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Chang whose telephone number is (703) 305-4824.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4700.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**

(703) 308-6606 (for informal or draft communications, please label

"PROPOSED" or "DRAFT")

Application/Control Number: 09/307,023

Page 7

Art Unit: 2778

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA.,  
Sixth Floor (Receptionist).



Kent Chang

PRIMARY EXAMINER

GROUP 2700

kc

August 11, 2000